

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/JP2005/002525

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B01J35/00 B01J23/89 B01D53/94

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01J B01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	EP 1 494 304 A (NISSAN MOTOR CO., LTD) 5 January 2005 (2005-01-05) paragraphs '0027!', '0029!', '0044!' - '0046!', '0049! examples 12,13 -----	1-3,6-14
X	US 6 221 805 B1 (YAMASHITA KOICHI ET AL) 24 April 2001 (2001-04-24) examples 10-16 -----	1-14
X	US 6 083 467 A (TAKESHIMA ET AL) 4 July 2000 (2000-07-04) column 6, line 53 - line 65 claim 4; examples 3-6,10 ----- -/-	1-3,5-14

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
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- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search

22 April 2005

Date of mailing of the international search report

02/05/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 714 693 A (TARGOS ET AL) 22 December 1987 (1987-12-22) column 6, line 57 - line 68 example IV -----	1-4,6-14
X	PATENT ABSTRACTS OF JAPAN vol. 1996, no. 01, 31 January 1996 (1996-01-31) -& JP 07 246343 A (KATSUHIKO WAKABAYASHI), 26 September 1995 (1995-09-26) abstract paragraphs '0010!', '0013!', '0026! -----	1-3,6-14
X	US 5 977 012 A (KHARAS ET AL) 2 November 1999 (1999-11-02) claims 3,4 column 4, line 12 - line 35 column 6, line 34 - line 36 -----	1,3-5,14 6-13
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**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

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